

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A hand-off notifying and controlling system, comprising:

a mobile node (MN) that transmits a registration request message;

a first foreign agent (FA) that provides a mobile internet protocol (IP) service to the MN,

before a hand-off of the MN takes place;

a second FA that provides the mobile IP service to the MN after the hand-off takes

place; and

a home agent (HA) that generates and transmits a registration release message to the first
FA, upon receipt of the registration request message from the MN sent via the second FA, when
the hand-off takes place, the HA setting the life time field of the registration release message to
the value of 0 causing the first FA to delete prior registration information of the MN, stored in
at least a visitor table, after receipt of the registration release message.
2. (Canceled)

3. (Original) The system of claim 1, wherein the registration release message has a data structure and type field value identical to the registration request message.

4. (Original) The system of claim 1, wherein the registration release message comprises:

a type field set to identify a type of message;

a life time field that sets an effective registration time of the MN;

a home address field that sets an IP address of the MN;

a home agent field that sets an IP address of the HA;

a care-of-address field that sets an IP address of an ending point of a tunnel; and

an identification field set to associate the registration request message and a registration reply message.

5. (Canceled)

6. (Original) The system of claim 1, wherein the HA does not transmit a registration release message, if an IP address of the MN is a multiple care-of address.

7. (Currently amended) A hand-off notifying and controlling method, comprising:

transmitting a registration request message from a mobile node (MN) to a home agent (HA) when a hand-off takes place from a first foreign agent (FA) to a second FA;

transmitting a registration release message from the HA to the first FA; and

deleting registration information of the MN at the first FA in accordance with the registration release ~~message~~message.

wherein the registration release message sets the life time field value to 0 to delete the registration information of the MN stored in at least a visitor table of the first FA that provided a mobile IP service to the MN before the hand-off.

8. (Original) The method of claim 7, wherein the registration release message has the same data structure and type field value as the registration request message.

9. (Original) The method of claim 7, wherein the registration release message comprises:

a type field set to identify a type of message;

a life time field that sets an effective registration time of the MN;

a home address field that sets an internet protocol (IP) address of the MN;

a home agent field that sets an IP address of the HA;

a care-of-address field that sets an IP address of an ending point of a tunnel; and

an identification field set to associate the registration request message and a registration reply message.

10. (Canceled)

11. (Original) The method of claim 7, wherein the HA does not transmit a registration release message, if an internet protocol (IP) address of the MN is a multiple care-of address.

12. (Currently amended) A hand-off notifying and controlling method in a mobile communication network, comprising:

transmitting a registration request message from a mobile node (MN) to a new foreign agent (FA), when a hand-off of the MN to the new FA takes place;

transmitting the registration request message received by the new FA to a home agent (HA) of the MN;

transmitting a registration release message, having a data structure and type field value the same as the registration request message, from the HA that has received the registration release message from the new FA, to an old FA; and

deleting registration information of the MN, stored in at least a visitor table of the old FA, in accordance with the registration release ~~message~~message.

wherein the HA sets a life time field of the registration release message to a value of 0 to cause the deletion of the registration information of the MN in the old FA that provided mobile IP service to the MN before the hand-off.

13. (Original) The method of claim 12, wherein the registration release request message comprises:

a type field set to identify a type of message;

a life time field that sets an effective registration time of the MN;

a home address field that sets an internet protocol (IP) address of the MN;

a home agent field that sets an IP address of the HA;

a care-of-address field that sets an IP address of an ending point of a tunnel; and

an identification field set to associate the registration request message and the registration release message.

14. (Canceled)

Serial No. **10/026,520**

Docket No. **P-0315**

Amdt. dated Proposed

Reply to Office Action of August 11, 2005

15. (Original) The method of claim 12, wherein the HA does not transmit the registration release message, if an internet protocol (IP) address of the MN is a multiple care-of-address.